

ABSTRACT OF THE DISCLOSURE

Disclosed are a micro-actuator for improving driving force in proportion to voltage, a variable optical attenuator
5 provided with the micro-actuator, and a method for manufacturing the same. The MEMS variable optical attenuator comprises a movable electrode arranged on a substrate and provided with a first comb portion moving in a vertical direction of the optical axes, fixed electrodes fixed to the
10 substrate and provided with a second comb portion interdigitated with the first comb portion, and a dielectric material film with permittivity of more than 3 formed on facing side surfaces of teeth of at least one of the first and second comb portions. The variable optical attenuator increases
15 electrostatic capacitance between the comb portions of the movable and fixed electrodes, thus improving driving force in proportion to voltage.